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EXAMINER	
CHAN, SING P	
ART UNIT	**PAPER NUMBER**
1791	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/595,310	YAMASHITA ET AL.	
	Examiner	Art Unit	
	SING P. CHAN	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-10,17 and 19-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-10,17 and 19-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/16/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-4, 7-10, 17, and 19-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending Application No. 10/577,648 in view of Romankiw (U.S. 3,971,710). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending Application No. 10/577,648 a method of manufacturing a display device, comprising: a first step of sequentially forming a first metal film, a first oxide film, and an optical filter on a first substrate, attaching a second substrate to a surface of the optical filter with a first adhesive material such that the second substrate faces the first

substrate through the optical filter, attaching a first support medium to a surface of the second substrate with a first peelable adhesive agent, and separating the first metal film from the first oxide film by a physical means; a second step of forming a layer including a pixel over a surface of a third substrate, and attaching a fourth substrate to a surface of the layer including the pixel with a second adhesive material; and a third step of attaching the first oxide film to another surface of the third substrate with a third adhesive material after the first and second steps, and removing the first peelable adhesive agent and the first support medium, wherein a metal oxide film is formed between metal film and oxide film or insulating layer by oxidizing a surface of the metal film to form the metal oxide film. The claims 1-5, 7, 10-12, 15, 16, and 22-27 of copending Application No. 10/577,648 is silent as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, oxidizing metal to form metal oxide layer using a number of oxidizing means is well known and conventional as shown for example by Romankiw. Romankiw discloses methods for forming anodized metal to provide metal oxide layer. The methods includes anodizing using a anodizing solution, oxidation at elevated temperature in oxygen containing atmosphere such as air, oxygen or oxygen plasma, and/or oxidation due to presence of a substance which can readily give up oxygen at elevated temperature (Col 7, lines 49-65)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any method of anodizing or oxidizing metal layer to metal oxide layer as disclosed by Romankiw in the method of claims 1-5, 7, 10-12, 15,

16, and 22-27 of copending Application No. 10/577,648, to provide methods of oxidation, which are all interchangeable.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 3, 7, 10, 17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al (U.S. 5,156,720) in view of Faris (U.S. 5,096,520), Allen et al (U.S. 6,057,961), Holley (U.S. 6,174,578), and Romankiw (U.S. 3,971,710).

Regarding claims 1, 7, 10, and 17, Rosenfeld et al discloses a method of producing released vapor deposited films. The method includes providing a substrate of foil, sheet, or plate of an inexpensive co-anodizable metal such as aluminum (Col 4, lines 35-39) depositing a valve metal layer by sputtering, evaporation, and etc. onto the

substrate (Col 4, lines 40-43), anodizing the valve metal layer to form a layer of metal oxide layer on the valve metal layer (Col 3, lines 57-59), applying at least one additional layer of material such as oxides, nitrides, carbides, which would act as insulating layer, onto the valve metal oxide layer (Col 4, lines 53-56), for an optical multilayer film or filter, alternating layers of dielectric material with high and low refractive index are applied to the valve metal oxide layer (Col 5, lines 53-66), attaching a material or support medium to the outer surface of the releasable films or layers with adhesive and peeling the film or layer from the valve metal layer with the separation between the valve metal layer and the metal oxide layer and the adhesive used for adhering the material such as polymer, paper, textiles, and wood and/or one which can be readily removed from the layers such as soluble polymer or one which can be oxidized or decomposed by irradiation to release or detach the releasable film (Col 4, line 62 to Col 5, line 18) or heat sealable polymer (Col 5, lines 15-18) to allow the peeling of the attached support medium, and finally transfer to a final substrate and then peeling the attached film with the support medium (Col 3, lines 34-42). Furthermore, the optical films are supported on a plastic substrate, a support medium (Col 5, lines 53-57) and comprise a stack of alternating layers of dielectric material or filters, which are applied or formed on the valve metal layer (Col 5, lines 60-66), wherein the additional filters applied to the first filter satisfied the second substrate attached to the first optical filter or subject body since the first optical film on the valve metal layer is a subject body. Rosenfeld et al is silent as to attaching or forming a second substrate with a second adhesive, the adhesive for the attaching the support medium is a peelable adhesive,

and as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, providing adhesive to bond the optical filters to form a stack is well known and conventional as shown for example by Faris. Faris discloses a method of forming polarizing filter arrays. The method includes coating the polarizing film with a clear adhesive, stacking to form a stack and pressing to laminate films together (Col 3, lines 16-21 and Col 3, lines 43-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a clear adhesive for bonding the filter films together to form a stack as disclosed by Faris in the method of Rosenfeld et al to provide a means for forming filter arrays with minimum number of parts and number steps with increase yield and performance and reduced cost. (See Faris, Col 2, lines 56-61) The examiner is providing Allen et al which discloses using adhesive to bond various films, coatings, fabrics to the optical layers (See Allen et al, Col 20, line 54 to Col 21, line 63) to support the use of adhesive to apply additional film or coating to either or both sides of the optical film. Furthermore, one of ordinary skill in the art reading Rosenfeld et al and Allen et al would appreciate the additional coating, film or fabric can be applied to the optical film prior to applying the support material and peelable adhesive as well as peeling the releasable film from the first substrate and then applying the additional coating, film or fabric of Allen et al to the exposed surface, which are all obvious variants.

It would have been obvious to one ordinary skill in the art at the time the invention was made to provide additional coatings or films to either or both sides of the optical film as disclosed by Allen et al in the method of Rosenfeld et al as modified by Faris to improve or alter their physical or chemical properties (See Allen et al, Col 20, lines 24-25). Rosenfeld et al as modified above is silent as to the adhesive is a peelable adhesive and as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, providing an adhesive layer that the adhesive characteristic can be deactivated by exposure to actinic radiation such as ultraviolet light is well known and conventional as shown for example by Holley. Holley discloses an adhesive tape with a layer of heat stable radiation curable adhesive composition which loses its adhesive characteristic upon exposure to radiation and allow for the release of ceramic articles (Col 1, line 61 to Col 2, line 14) without damage (Col 1, lines 35-36). One of ordinary skill in the art reading Rosenfeld et al and Holley would appreciate the adhesive of Holley can be used as the adhesive for attaching the support medium in the method of Rosenfeld et al to allow the support medium be separated from the multilayer optical films by exposing the adhesive to UV light to deactivating the adhesive characteristic of the adhesive to allow for peeling or separating of the support medium from the optical films.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a UV light curable adhesive composition, which loses its adhesive characteristic upon exposure to UV radiation as disclosed by Holley in the

method of Rosenfeld et al as modified by combination of references to allow for the layers to be removed or separated without damage. (See Holley, Col 1, lines 35-36) Rosenfeld et al as modified above is silent as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, oxidizing metal to form metal oxide layer using a number of oxidizing means is well known and conventional as shown for example by Romankiw. Romankiw discloses methods for forming anodized metal to provide metal oxide layer. The methods includes anodizing using a anodizing solution, oxidation at elevated temperature in oxygen containing atmosphere such as air, oxygen or oxygen plasma, and/or oxidation due to presence of a substance which can readily give up oxygen at elevated temperature (Col 7, lines 49-65)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any method of anodizing or oxidizing metal layer to metal oxide layer as disclosed by Romankiw in the method of Rosenfeld et al as modified by combination of references to provide methods of oxidation, which are all interchangeable.

Regarding claims 3 and 19, Rosenfeld et al discloses the valve metal layer includes tantalum, niobium, zirconium, hafnium, titanium and alloy (Col 3, lines 52-61)

Regarding claim 20, Rosenfeld et al discloses the additional layer or layers deposited onto the metal oxide layer includes silicon dioxide or SiO_2 (Col 6, lines 62-66).

Regarding claims 21-23, Rosenfeld et al discloses the optical layers are formed into anti-reflective coatings, filters, and polarizer (Col 6, lines 5-15), but is silent as to the filters stack includes color filters. However, providing filter stack with color filters is well known and conventional as shown for example by Faris. Faris discloses a method forming polarizing filter stack. The method includes providing a polarizing filter material film, a substrate material, and a reflective film, forming a 3 color filter material onto the substrate sequentially and forming additional layers, applying adhesive to the laminated sheets and stack as many of them as necessary to form the filter stack. (Col 3, lines 17-46) Furthermore, Faris discloses the filter materials includes gelatin filter film, dielectric interference filter, cholesteric liquid crystal silicone filters, or stretched polyvinyl alcohol polarizing filter, which is a plastic material and all are interchangeable.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide color filters as part of a filter stack and to provide plastic material as the filter material as disclosed by Faris in the method of Rosenfeld et al as modified by combination of references to provide a means for forming filter arrays with

minimum number of parts and number steps with increase yield and performance and reduced cost. (See Faris, Col 2, lines 56-61)

Regarding claim 24, Rosenfeld et al discloses an opaque aluminum reflector layer or film with a final high index layer. (Col 6, lines 50-55)

6. Claims 2, 4, 8, 9, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al (U.S. 5,156,720) in view of Shimizu et al (U.S. 4,934,791), Allen et al (U.S. 6,057,961), Holley (U.S. 6,174,578), and Romankiw (U.S. 3,971,710).

Regarding claims 2, 8, 9, 25 and 26, Rosenfeld et al discloses a method of producing released vapor deposited films. The method includes providing a substrate of foil, sheet, or plate of an inexpensive co-anodizable metal such as aluminum (Col 4, lines 35-39) depositing a valve metal layer by sputtering, evaporation, and etc. onto the substrate (Col 4, lines 40-43), anodizing the valve metal layer to form a layer of metal oxide layer on the valve metal layer (Col 3, lines 57-59), applying at least one additional layer of material such as oxides, nitrides, carbides, which would act as insulating layer, onto the valve metal oxide layer (Col 4, lines 53-56), for an optical multilayer film or filter, alternating layers of dielectric material with high and low refractive index are applied to the valve metal oxide layer (Col 5, lines 53-66), attaching a material or support medium to the outer surface of the releasable films or layers with adhesive and peeling the film or layer from the valve metal layer with the separation between the valve metal layer and the metal oxide layer and the adhesive used for adhering the

material such as polymer, paper, textiles, and wood and/or one which can be readily removed from the layers such as soluble polymer or one which can be oxidized or decomposed by irradiation to release or detach the release film (Col 4, line 62 to Col 5, line 18) or heat sealable polymer (Col 5, lines 15-18) to allow the peeling of the attached support medium, and finally transfer to a final substrate and then peeling the attached support medium (Col 3, lines 34-42). The examiner has provided Allen et al which discloses using adhesive to bond various films, coatings, fabrics to the optical layers (See Allen et al, Col 20, line 54 to Col 21, line 63) to support the use of adhesive. Furthermore, Allen discloses a rigid or semi-rigid substrate such as glass, metal, acrylic, polyester, and other polymer backing can be laminated to the optical film to provide support and various optical layers, materials, and devices may also be applied the films these layer and material includes magnetic or magneto-optic coatings or films, liquid crystal panel, privacy windows, photographic emulsion, fabrics, prismatic films, brightness enhancement films, holographic films, embossable films, anti-tamper films or coatings, IR transparent films, polarizer or mirrors (Col 21, lines 28-55). Additionally, multiple additional layers on one or both major surfaces of the optical film are contemplated and can be any combination of the aforementioned coating or films. one of ordinary skill in the art reading Rosenfeld et al and Allen et al would appreciate the additional coating, film or fabric can be applied to the optical film prior to applying the support material and peelable adhesive as well as peeling the releasable film from the first substrate and then applying the additional coating, film or fabric of Allen et al to the exposed surface, which are all obvious variants.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an adhesive to bond the various coatings, films or fabrics to either or both sides of the optical film or layers as well as providing rigid or semi-rigid support medium such as glass, metal, or plastic as disclosed by Allen et al in the method of Rosenfeld et al to improve or alter the optical film or layer physical or chemical properties. (See Allen et al, Col l20, lines 24-25) Rosenfeld et al as modified above is silent as to the optical film or filter includes a black matrix and a colored layer, the adhesive for bonding the support medium is a peelable adhesive, and as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, provide a filter with a black matrix and colored layers is well known and conventional as shown for example by Shimizu et al. Shimizu et al discloses a color filter. The color filter includes color elements or layer form from pigment and a photosensitive resin and a black matrix (Col 2, lines 62-68).

It would have been obvious to one in the art at the time the invention was made to provide a colored filter with a black matrix as disclosed by Shimizu et al in the method of Rosenfeld et al as modified by Allen et al to provide a color filter which produces a high precision pattern with a high surface smoothness and a good environmental resistance. (See Shimizu et al, Col 2, lines 25-29) Rosenfeld et al as modified above is silent as to the adhesive is a peelable adhesive and as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, providing an adhesive

layer that the adhesive characteristic can be deactivated by exposure to actinic radiation such as ultraviolet light is well known and conventional as shown for example by Holley. Holley discloses an adhesive tape with a layer of heat stable radiation curable adhesive composition which loses its adhesive characteristic upon exposure to radiation and allow for the release of ceramic articles (Col 1, line 61 to Col 2, line 14) without damage (Col 1, lines 35-36). One of ordinary skill in the art reading Rosenfeld et al and Holley would appreciate the adhesive of Holley can be used as the adhesive for attaching the support medium in the method of Rosenfeld et al to allow the support medium be separated from the multilayer optical films by exposing the adhesive to UV light to deactivating the adhesive characteristic of the adhesive to allow for peeling or separating of the support medium from the optical films.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a UV light curable adhesive composition, which loses its adhesive characteristic upon exposure to UV radiation as disclosed by Holley in the method of Rosenfeld et al as modified by combination of references to allow for the layers to be removed or separated without damage. (See Holley, Col 1, lines 35-36) Rosenfeld et al as modified above is silent as to the metal oxide film is formed by at least one of a thermal oxidization treatment, an oxygen plasma treatment, and a treatment with oxidizing solution on the metal film. However, oxidizing metal to form metal oxide layer using a number of oxidizing means is well known and conventional as shown for example by Romankiw. Romankiw discloses methods for forming anodized metal to provide metal oxide layer. The methods includes anodizing using a anodizing

solution, oxidation at elevated temperature in oxygen containing atmosphere such as air, oxygen or oxygen plasma, and/or oxidation due to presence of a substance which can readily give up oxygen at elevated temperature (Col 7, lines 49-65)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any method of anodizing or oxidizing metal layer to metal oxide layer as disclosed by Romankiw in the method of Rosenfeld et al as modified by combination of references to provide methods of oxidation, which are all interchangeable.

Regarding claim 4, Rosenfeld et al discloses the valve metal layer includes tantalum, niobium, zirconium, hafnium, titanium and alloy (Col 3, lines 52-61)

Response to Arguments

7. Applicant's arguments, see Page 8, line 15 to Page 9, line 7, filed December 16, 2009, with respect to the rejection(s) of claim(s) s 1-4, 7-17, and 19-26 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Romankiw (U.S. 3,971,710), which discloses a number of processes for anodizing or oxidizing metal to metal oxide, which are interchangeable.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SING P. CHAN whose telephone number is (571)272-1225. The examiner can normally be reached on Monday-Thursday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sing P Chan/
Acting Examiner of Art Unit 1791

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791